UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

THE INFLUENCE OF ROMANTIC RELATIONSHIPS, EMPLOYMENT, AND EDUCATION ON DESISTANCE FROM CRIME FOR YOUNG ADULTS THAT ARE FORMER SERIOUS JUVENILE OFFENDERS

A THESIS

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

MASTER OF ARTS

By

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Norman, Oklahoma
2016

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THE INFLUENCE OF ROMANTIC RELATIONSHIPS, EMPLOYMENT, AND EDUCATION ON DESISTANCE FROM CRIME FOR YOUNG ADULTS THAT ARE FORMER SERIOUS JUVENILE OFFENDERS

A THESIS APPROVED FOR THE
DEPARTMENT OF SOCIOLOGY

BY

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ACKNOWLEDGEMENTS

I would like to thank my thesis committee, Dr. Constance Chapple, Dr. Ann Beutel, and Dr. Trina Hope for their invaluable sociological expertise and encouragement throughout this project. I would like to especially thank my chair, Dr. Chapple, for her continued assistance and support as well.

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ABSTRACT

Prior studies have determined that good marriages, employment, and education may decrease criminal offending for adult offenders. Much of the literature that addresses positive life events and desistance from crime has utilized samples comprised of adult offenders who have already begun to reduce their offending. As a result, further research is needed regarding which life events decrease offending within a high-risk group, namely serious juvenile offenders. According to the age-crime curve, even high rate offenders have significantly decreased their offending by early adulthood. However, which positive life events hasten this decline in offending is not well studied. Therefore, by utilizing the Pathways to Desistance data from the eighty-four month follow-up interviews when respondents were between the ages of twenty and twenty-six (N=788), this study furthered previous research by assessing which factors decrease the likelihood of offending for young adults who are former serious juvenile offenders.

In particular, this study answers the following three questions. First, do higher levels of romantic relationship control decrease the likelihood of offending for young adults who are former serious juvenile offenders? Second, does greater commitment to employment decrease the likelihood of offending for young adults who are former serious juvenile offenders? Third, does greater commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders? Results indicate that higher levels of romantic relationship control and greater commitment to employment decrease the likelihood of offending for young adults who are former serious juvenile offenders. Results also suggest that greater levels of commitment to education do not decrease the likelihood of offending for young adults

who are former serious juvenile offenders.

Keywords: turning points; desistance from crime; and juvenile offenders

INTRODUCTION

Juvenile delinquency has declined nationally over the last thirty years, as the arrest rate for juveniles was 38% lower in 2012 when compared to 1980 (Office of Juvenile Justice and Delinquency Prevention 2015a). Irrespective of the decline in juvenile delinquency, a substantial number of adolescents continue to engage in juvenile delinquency (Office of Juvenile Justice and Delinquency Prevention 2015a). In 2012, for instance, 1,319,700 adolescents (under the age of eighteen) were arrested for offenses and 341,069 adolescents were adjudicated (Office of Juvenile Justice and Delinquency Prevention 2015a; Office of Juvenile Justice and Delinquency Prevention 2015b). Engaging in delinquency often leads to reoffending, lower educational attainment, poor employment outcomes, fewer successful relationships, and greater financial problems (Moffitt, Caspi, Harrington, and Milne 2002). According to the age-crime curve, even high rate offenders have significantly decreased their offending by early adulthood (Gottfredson and Hirschi 1990). However, which positive life events hasten this decline in offending is not well studied. Thus, it is important to determine which mechanisms contribute to declines in offending for juvenile offenders and, in particular, serious juvenile offenders.

Studies of youth desistance from crime have focused on the following potentially important turning points: romantic relationships, employment, education, and residential location. Of these turning points, researchers have found that the most important turning points for youths are high quality romantic relationships (Sampson and Laub 1993; Laub, Nagin, and Sampson 1998; Laub and Sampson 2003; Sampson and Laub 2005; McCarthy and Casey 2008; Giordano, Lonardo, Manning, and

Longmore 2010), commitment to employment (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005), and commitment to education (Ambrose and Lester 1988; Katsiyannis and Archwamety 1997; Archwamety and Katsiyannis 1998). Thus, the existing research suggests that youths who have strong ties to conventional institutions such as stable romantic partnerships, school, and work are less likely to commit crime in the future.

However, much of this prior research utilized samples that were small (Ambrose and Lester 1988; Sampson and Laub 1993; Katsiyannis and Archwamety 1997; Archwamety and Katsiyannis 1998; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005), did not include youths who were serious offenders (McCarthy and Casey 2008; Giordano et al. 2010), or did not consist of recent cohorts of youths whose experiences with romantic relationships, employment, and/or education (Sampson and Laub 1993; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005) may differ from earlier generations of youths. For instance, cohabiting relationships are more common for youth today when compared to previous generations of youths, as cohabitation now occurs before the majority of marriages and more individuals today remain in cohabiting relationships that do not lead to marriage (Sassler 2004; Cherlin 2010). Furthermore, youth today are also more likely to marry at a later age than previous generations (Cherlin 2010). As a result, romantic relationships may be more salient in recent cohorts of youths. In addition, due to globalization and automation, contemporary youth are less likely than previous generations of youths to be employed in routine jobs that pay well but do not require a college education (Cherlin 2009). Moreover, youth today are more likely to be employed in manual jobs

in the service sector that require only a high school degree/GED and do not pay well (Cherlin 2009). Consequently, contemporary youth are more likely than previous generations of youths to need greater credentials for employment as well as experience unstable employment (Cherlin 2009). Thus, employment and education may be more salient in youth today. Accordingly, it is important to examine both serious offenders and desistance within recent cohorts of youth in order to determine the salience of these three potentially important turning points in youths' lives that may decrease the likelihood of offending.

This study will focus on the bonds to romantic relationships, employment, and education, as young adults who are former serious juvenile offenders may have limited, if any, experience with romantic love and/or work, weak bonds to their parents and other family members, educational deficits, poor educational experiences, and/or lower levels of educational attainment (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005; McCarthy and Casey 2008). Therefore, as adolescents transition to young adulthood, romantic relationships, employment, and education may become more important in their lives. If so, former serious juvenile offenders would be more likely to desist from crime with greater attachment and bonds to romantic relationships, employment, and education. This study will also assess how stakes in conformity and beliefs, as measured by romantic relationship control, commitment to employment, and commitment to education, may contribute to desistance from crime for young adults who are former serious juvenile offenders.

By utilizing the Pathways to Desistance data from the eighty-four month follow-up interviews when respondents were between the ages of twenty and twenty-six

(N=788), this study will answer the following questions (Center for Research on Healthcare Data Center 2016a). First, do higher levels of romantic relationship control decrease the likelihood of offending for young adults who are former serious juvenile offenders? Second, does greater commitment to employment decrease the likelihood of offending for young adults who are former serious juvenile offenders? Third, does greater commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders? By answering these questions, this study will determine how romantic relationship control, commitment to employment, and commitment to education influence desistance from crime for young adults who are former serious juvenile offenders.

THEORY AND LITERATURE REVIEW

Prior studies assessing the influence of turning points on desistance from crime have utilized the age-graded theory of informal social control (Sampson and Laub 1993; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005; Kirk 2012; Skardhamar and Savolainen 2014). As romantic relationships, employment, and education may be considered positive turning points that may decrease the likelihood of offending for young adults who are former serious juvenile offenders, I will utilize the age-graded theory of informal social control as the theoretical framework for my study.

Age-Graded Theory of Informal Social Control

Through their age-graded theory of informal social control, Sampson and Laub (1993) maintain that criminal and deviant behavior result from an individual's weak or

broken bonds to society (Laub and Sampson 2003; Simons, Simons, and Wallace 2004; Sampson and Laub 2005; Wikstrom and Treiber 2009). During childhood, background factors (i.e., low socioeconomic status, family size, family disruption, residential mobility, parent's deviance, household crowding, foreign born, and mother's employment) and individual factors (i.e., difficult temperament, persistent tantrums, and early conduct disorder) influence whether an individual engages in deviant behavior (Sampson and Laub 1993). Deviant behavior that occurs during childhood "undermines relationships and activities that are important social controls during later stages," thereby leading to antisocial behavior that is largely stable throughout the life course (Simons et al. 2004:124). During adolescence, weak family relationships (i.e., lack of supervision, harsh discipline, and parental rejection), poor educational experiences (i.e., weak attachment and poor performance), and involvement with delinquent peers increase the likelihood that individuals will engage in delinquency (Sampson and Laub 1993).

Individuals may continue to engage in criminal behavior during adulthood if they have weak social bonds such as weak attachment to employment or marriage (Sampson and Laub 1993). On the contrary, if individuals develop strong social bonds during adulthood, they may desist from engaging in criminal behavior (Sampson and Laub 1993). So, even though individual differences in antisocial behavior may be largely stable throughout the life course, behaviors may also change due to life experiences, which may "redirect criminal trajectories in either a more positive or a more negative manner" (Laub and Sampson 2003:6). Therefore, experiencing turning points that strengthen informal social control decreases the likelihood that individuals

will engage in criminal activities (Simons et al. 2004). For instance, Laub and Sampson (2003) suggest that positive turning points such as employment, marriage, military service, reform school, and residential relocation may provide individuals with strong social bonds, stakes in conformity, and informal social control. Stronger attachment and bonds to conventional others and activities leads to individuals experiencing a stronger stake in conformity, a greater amount of informal social control, and an increase in bonds to society (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005). By doing so, engaging in criminal behavior would become more costly for individuals, thereby decreasing the likelihood of offending (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005).

Turning Points for Juvenile Offending

According to Laub and Sampson (2003), positive and negative life events influence the likelihood of engaging in criminal behavior. Prior studies indicate that cohabitation, education, employment, marriage, military service, residential relocation, reform school, and romantic relationships influence desistance from crime for juveniles and/or adults (Ambrose and Lester 1988; Shover and Thompson 1992; Bachman and Schulenberg 1993; Sampson and Laub 1993; Steinberg, Fegley, and Dornbusch 1993; Horney, Osgood, and Marshall 1995; Katsiyannis and Archwamety 1997; Wright, Cullen, and Williams 1997; Archwamety and Katsiyannis 1998; Laub et al. 1998; Uggen 2000; Laub and Sampson 2003; Sampson and Laub 2005; McCarthy and Casey 2008; Giordano et al. 2010; Kirk 2012; Forrest 2014; Skardhamar and Savolainen 2014). In particular, this study will focus on whether romantic relationships,

employment, and education decrease the likelihood of reoffending for young adults who are former serious juvenile offenders.

Romantic Relationships

Romantic relationships have been found to influence desistance from crime for juveniles and/or adults (Sampson and Laub 1993; Horney et al. 1995; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005; McCarthy and Casey 2008; Giordano et al. 2010; Forrest 2014). For instance, McCarthy and Casey (2008) found that adolescents who scored higher on a love scale were more likely to desist from crime suggesting that romantic love served as a deterrent for future offending. In addition, Giordano et al. (2010) found that romantic relationships that were characterized by higher levels of verbal conflict led to higher levels of juvenile delinquency for adolescents. In other words, adolescents were more likely to desist from crime if their romantic relationships had lower levels of verbal conflict (Giordano et al. 2010). Good marriages (i.e., marriages characterized by high quality marital bonds and strong marital attachment) have also been found to increase desistance from crime for former male juvenile offenders (Sampson and Laub 1993; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005). Being married (i.e., living with a spouse) and higher quality marriages have also been found to increase desistance from crime for adult offenders (Horney et al. 1995; Forrest 2014). Cohabitation has not been found to lead to a desistance from crime for adult offenders irrespective of the quality of the relationship (Forrest 2014).

Good romantic relationships may also reduce the likelihood of offending for

juvenile offenders. Stable romantic relationships may serve as a turning point that strengthens informal social control for juvenile offenders (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005). For instance, stable romantic relationships may provide juvenile offenders with a stake in conformity in which they develop a strong attachment and bond to their significant other (Simons et al. 2004). By doing so, romantic relationships may become important in the lives of juvenile offenders as they may have limited, if any, experience with romantic love (McCarthy and Casey 2008). Moreover, juvenile offenders are likely to have weak attachment and bonds to their parents and family, and whatever attachment and bonds they do have to their parents and family may decrease as they become older (McCarthy and Casey 2008). So, the stronger the attachment and bonds are to their significant other, the more likely juvenile offenders may be to desist from crime (Sampson and Laub 1993; Laub and Sampson 2003; Simons et al. 2004; Sampson and Laub 2005). Romantic relationships may also serve as a turning point for juvenile offenders due to the direct social control that they may experience from their significant other (Laub and Sampson 2003). For instance, greater amounts of direct social control that individuals receive from their significant other may lead to stronger bonds to their significant other and weaker bonds to their friends and delinquent peers (Laub and Sampson 2003). As a result, having stronger bonds to their significant other may lead to juvenile offenders being less likely to engage in criminal behavior (Laub and Sampson 2003).

Much of the prior literature on the effect of romantic relationships on desistance from crime has not utilized samples comprised of serious juvenile offenders and recent cohorts of youths. For instance, in order to assess the effect of romantic relationships on

juvenile delinquency, McCarthy and Casey (2008) utilized a nationally representative sample of adolescent youth from 1994 to 1996 whereas Giordano et al. (2010) utilized a random sample of adolescent youth in Toledo, Ohio from 2001 to 2002. Moreover, the sample used by Sampson and Laub (1993), Laub et al. (1998), Laub and Sampson (2003), and Sampson and Laub (2005) was gathered from delinquent and non-delinquent boys who were born in the 1920s and 1930s. The life histories of these boys were assessed several times until they reached the age of seventy (Sampson and Laub 1993; Laub et al. 1998; Laub and Sampson 2003; Sampson and Laub 2005). In addition, Horney et al. (1995) utilized a sample of male adult offenders from 1989 to 1990 to determine the likelihood of desistance from crime. Furthermore, the sample Forrest (2014) utilized to assess the influence of high quality marriages and cohabitating relationships on desistance from crime was based on a nationally representative sample of young adults from 2000 to 2008. Accordingly, the effects of romantic relationships may differ for a recent sample of young adults that is comprised of former serious juvenile offenders, including both males and females. Hence, new research is needed to determine the effect of romantic relationships on desistance from crime for young adults who are former serious juvenile offenders.

Employment

Employment has been found to influence the likelihood of desistance from crime for juveniles and/or adults (Bachman and Schulenberg 1993; Sampson and Laub 1993; Steinberg et al. 1993; Horney et al. 1995; Wright et al. 1997; Uggen 2000; Laub and Sampson 2003; Sampson and Laub 2005; Skardhamar and Savolainen 2014). For

instance, several studies have found that employed adolescents who work longer hours have higher levels of delinquency than adolescents who worked less and/or did not work (Bachman and Schulenberg 1993; Steinberg et al. 1993; Wright et al. 1997). However, other studies have found that the relationship between employment and delinquency for adolescents is spurious whereby delinquency is not caused by employment; instead, delinquency results from other factors that determine whether an individual is employed and how many hours are worked (Paternoster, Bushway, Brame, and Apel 2003; Staff, Osgood, Schulenberg, Bachman, and Messersmith 2010). In addition, stable employment, commitment to employment, and reciprocal ties between employees and employers have been found to increase desistance from crime for former male juvenile offenders (Sampson and Laub 1993; Laub and Sampson 2003; Sampson and Laub 2005).

Moreover, adult offenders aged twenty-seven years and older have been found to be more likely to desist from crime than younger offenders when given employment opportunities (Uggen 2000). However, some studies have not found employment to significantly increase desistance from crime for adult offenders (Horney et al. 1995; Skardhamar and Savolainen 2014). For instance, Horney et al. (1995) found a weak relationship between employment and desistance from crime for male adult offenders. Additionally, Skardhamar and Savolainen (2014) found that a small proportion of their sample of male adult offenders desisted from crime as a result of employment and that employment was largely an effect of desistance from crime rather than a cause of desistance from crime among those who had recidivated. Due to the mixed results regarding the effect of employment on desistance from crime, future research is

warranted on whether commitment to employment increases the likelihood of desistance from crime for young adults who are former serious juvenile offenders, including both males and females.

Employment may serve as a turning point that may strengthen informal social control for serious juvenile offenders. For instance, employment may provide juvenile offenders with a stake in conformity whereby having "job stability, commitment to work, and mutual ties binding workers and employers" may serve to increase their attachment and bonds to employment (Laub and Sampson 2003:47). By doing so, employment may become important in the lives of juvenile offenders as they may have limited, if any, work experience. So, the stronger the attachment and bonds are to employment, the more likely juvenile offenders may be to desist from crime (Laub and Sampson 2003). Employment may also serve as a turning point for juvenile offenders due to the direct social control that they may experience from their employer (Laub and Sampson 2003). For instance, receiving greater amounts of direct social control from their employer may lead to juvenile offenders developing strong bonds to their employer (Laub and Sampson 2003). As a result, having stronger bonds to employment and their employer may lead to juvenile offenders being less likely to engage in criminal behavior (Laub and Sampson 2003).

Education

Education has been found to influence the likelihood of desistance from crime for juveniles and/or adults (Ambrose and Lester 1988; Shover and Thompson 1992; Horney et al. 1995; Katsiyannis and Archwamety 1997; Archwamety and Katsiyannis

1998). For instance, studies have found that juvenile offenders are less likely to desist from crime if they have deficits in basic skills and/or received special education (Katsiyannis and Archwamety 1997; Archwamety and Katsiyannis 1998). Juvenile offenders who have obtained a high school degree have been found to be more likely to desist from crime than those who do not have such a degree (Ambrose and Lester 1988). In addition, a strong, significant relationship was found between education and desistance from crime whereby attending school increased the likelihood of desistance from crime for male adult offenders (Horney et al. 1995). Moreover, level of educational attainment has also been found to increase the likelihood of desistance from crime for male adult offenders (Shover and Thompson 1992). As a result of these findings, future research is warranted on whether commitment to education increases the likelihood of desistance from crime for young adults who are former serious juvenile offenders, including both males and females.

Education may serve as a turning point that may strengthen informal social control for serious juvenile offenders. For instance, education may provide juvenile offenders with a stake in conformity if they are enrolled in school, have a commitment to education, have ties to teachers, and have a greater level of educational attainment (Laub and Sampson 2003). By doing so, education may become important in the lives of juvenile offenders as they may have educational deficits, poor educational experiences, and lower levels of educational attainment. So, the stronger the attachment and bonds are to education, the more likely juvenile offenders may be to desist from crime (Laub and Sampson 2003). Education may also serve as a turning point for juvenile offenders due to the direct social control that they may experience from their

teachers (Laub and Sampson 2003). For instance, receiving greater amounts of direct social control from their teachers may lead to juvenile offenders developing strong bonds to their teachers (Laub and Sampson 2003). As a result, having stronger bonds to education and their teachers may lead to juvenile offenders being less likely to engage in criminal behavior (Laub and Sampson 2003).

HYPOTHESES

Based on relevant past literature and the age-graded theory of informal social control, several hypotheses have been formulated. The hypotheses that have been developed are as follows:

$H_{1:}$ Higher levels of romantic relationship control decrease the likelihood of offending for young adults who are former serious juvenile offenders.

$H_{2:}$ Greater commitment to employment decreases the likelihood of offending for young adults who are former serious juvenile offenders.

$H_{3:}$ Greater commitment to education decreases the likelihood of offending for young adults who are former serious juvenile offenders.

DATA AND METHODS

To determine whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders, I utilized the eighty-four month follow-up interviews from the Pathways to Desistance data (Center for Research on Healthcare Data Center 2016a). Specifically, I utilized the baseline data and the eighty-

four month follow-up data when respondents were between the ages of twenty and twenty-six (Center for Research on Healthcare Data Center 2016a). The Pathways to Desistance data was chosen as it includes longitudinal data on serious juvenile offenders as well as measures regarding romantic relationships, employment, and education (Mulvey 2013; Center for Research on Healthcare Data Center 2016b).

The Pathways to Desistance study was a multi-site, longitudinal study of serious juvenile offenders (N=1,354) that was conducted between 2000 and 2010 (Mulvey 2013). The study included youths who had been adjudicated "from the juvenile and adult court systems in Maricopa County (Phoenix), Arizona (N=654) and Philadelphia County, Pennsylvania (N=700)" (Mulvey 2013). Baseline interviews with respondents were completed between November 2000 and January 2003 (Mulvey 2013). To be eligible for the baseline interviews, respondents had to have been adjudicated for a serious offense (i.e., a felony offense in most cases or a misdemeanor property, sexual assault, or weapons offense in a few cases) and been between the ages of fourteen and seventeen when they committed this offense (Mulvey 2013). After completing baseline interviews, follow-up interviews were scheduled with respondents every six months for the first thirty-six months and every twelve months thereafter with the last round of follow-up interviews being conducted at eighty-four months when respondents were between the ages of twenty and twenty-six (Mulvey 2013). Thus, the Pathways to Desistance study followed serious juvenile offenders for seven years as they transitioned from adolescence to adulthood (Mulvey 2013). The Pathways to Desistance data from the eighty-four month follow-up interviews will allow me to apply the age-graded theory of informal social control to determine whether romantic relationship

control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders.

When the eighty-four month follow-up interviews were conducted for the Pathways to Desistance study, 220 respondents from baseline were not interviewed (Mulvey 2013). Of the 220 respondents who were not interviewed, forty-eight respondents had died, forty-six respondents had withdrawn their participation altogether from the study, and 126 respondents could not be located and/or interviewed (Mulvey, Schubert, and Piquero 2014). The attrition rate for the eighty-four month follow-up interviews is approximately 16.25% (Mulvey 2013). The 220 cases that were lost to attrition were not included in any aspect of this study. As a result, 1,134 cases were eligible for inclusion in this study. The sample for this study was also limited to cases in which respondents were interviewed at a location other than a facility (i.e., residential treatment center, secure, jail/prison, and detention), as this study is interested in how romantic relationship control, commitment to employment, and commitment to education affect the likelihood of offending for non-institutionalized young adults who are former serious juvenile offenders. Therefore, 343 cases of institutionalized young adults were not included in this study. In addition, in order to have a comprehensive assessment of respondents' level of offending, the sample for this study was further limited to cases that did not contain missing values for any of the measures discussed below for the dependent variable scale of frequency of offending. Thus, an additional three cases were not included in this study. After limiting the sample to non-institutionalized young adults with complete data for the dependent variable scale of frequency of offending, the resulting sample size included 788 respondents.

Accordingly, approximately 30.51% of eligible cases (the majority of which were institutionalized young adults) from the eighty-four month follow-up interviews for the Pathways to Desistance study were not included in this study. Of the 788 cases utilized in this study, thirty-nine cases had at least one missing value for the following control variables: the future orientation inventory scale, parents' education level, mother's warmth, and mother's hostility. To retain these thirty-nine cases, multiple imputation in STATA was performed.

Measures

This study utilized data from the eighty-four month follow-up interviews for the measures of romantic relationship status, romantic relationship control, employment status, commitment to employment, high school degree/GED attainment, commitment to education, frequency of offending, and the control variable of age (refer to Appendix B for further information regarding the measures utilized in this study). In addition, this study employed data from baseline for the remaining control variables (i.e., gender, non-white, parents' education level, two biological parents in household, mother's warmth, mother's hostility, number of early onset problems, and the future orientation inventory scale). Thus, this study controls for early family deficits and individual criminal propensity.

Romantic Relationship Control

Respondents' romantic relationship control is measured using four different measures. Three of these measures are attitudinal assessments regarding the level of

control and/or influence a respondents' romantic relationship has on his/her life. Each of these three measures are pre-made scales created by Mulvey (2013); however, the individual items utilized to comprise these scales are not provided. If available, the individual psychometrics will be discussed below. The first measure determines a respondents' romantic relationship status by utilizing a measure of whether the respondent was in a romantic relationship or not (Mulvey 2013). I recoded responses for this measure according to the following code: 0 = not in romantic relationship; and 1 = in romantic relationship.

The second measure is an attitudinal assessment that captures the quality of a respondents' romantic relationship (Mulvey 2013). This measure consists of an average of seven items that assessed a respondents' level of happiness with his/her romantic relationship (Center for Research on Healthcare Data Center 2016c). Mulvey (2013) performed confirmatory factor analysis on this scale at baseline (Center for Research on Healthcare Data Center 2016d). Results at baseline suggest that the scale has good internal consistency (alpha reliability score of 0.69) and that the measures load onto one factor (Tabachnick and Fidell 1996; Center for Research on Healthcare Data Center 2016d). If a respondent did not have a romantic relationship, his/her response was coded as -100 (Mulvey 2013). On the contrary, if a respondent had a romantic relationship, his/her response ranged from 1 (lowest) to 5 (highest) with a lower number indicating a low quality romantic relationship and a higher number indicating a high quality romantic relationship (Mulvey 2013). I recoded responses for this measure from 0 (not in romantic relationship/lowest quality romantic relationship) to 4 (highest quality romantic relationship).

The third measure is an attitudinal assessment that involves how tolerant a respondents' significant other is of deviance (Center for Research on Healthcare Data Center 2016c). This measure consists of an average of two items that assessed how upset a respondents' significant other would be if the respondent engaged in deviant behavior (Center for Research on Healthcare Data Center 2016c). Psychometrics is not available for this scale, as it consists of only two items (Center for Research on Healthcare Data Center 2016d). This measure assesses the level of control by a respondents' significant other, as a respondent may be less likely to engage in deviant behavior if his/her significant other is less tolerant of deviance. Moreover, a respondent may be more likely to engage in deviant behavior if his/her significant other is more tolerant of deviance. If a respondent did not have a romantic relationship, his/her response was coded as -100 (Mulvey 2013). On the contrary, if a respondent had a romantic relationship, his/her response ranged from 1 (would not care at all) to 4 (would get very upset with me) with a lower number indicating a greater tolerance of deviant behavior and a higher number indicating a lesser tolerance of deviant behavior (Mulvey 2013). I recoded responses for this measure from 0 (not in romantic relationship/highest tolerance of deviance) to 3 (lowest tolerance of deviance).

The fourth measure is an attitudinal assessment that involves whether a respondents' significant other monitors his/her behavior and deviance (Center for Research on Healthcare Data Center 2016c). This measure consists of an average of five items that assessed whether a respondents' significant other has knowledge of the respondents' behavior and deviance (Center for Research on Healthcare Data Center 2016c). Psychometrics is not available for this scale, as Mulvey (2013) did not conduct

analyses on this scale (Center for Research on Healthcare Data Center 2016d). If a respondent did not have a romantic relationship, his/her response was coded as -100 (Mulvey 2013). On the contrary, if a respondent had a romantic relationship, his/her response ranged from 1 (does not know at all) to 4 (knows everything) with a lower number indicating a lesser level of monitoring and a higher number indicating a greater level of monitoring (Mulvey 2013). I recoded responses for this measure from 0 (not in romantic relationship/lowest monitoring of behavior and deviance) to 3 (highest monitoring of behavior and deviance).

Each of the previous measures regarding respondents' romantic relationship status, the quality of a respondents' romantic relationship, the level of tolerance a respondents' significant other has with deviance, and the level of monitoring a respondents' significant other has on his/her behavior and deviance, appear to measure the concept of romantic relationship control. Thus, these measures possess face validity. As discussed above, stable romantic relationships may serve as a turning point in adults' lives thereby leading to strengthening of informal social control (Laub and Sampson 2003). Moreover, by being in a stable romantic relationship, offenders have a greater likelihood of possessing a "stake in conformity" whereby the stronger the bonds and attachments are to their significant others, the less likely they are to reoffend (Simons et al. 2004:125). So, former offenders may be less likely to reoffend if they are in a romantic relationship that has a high quality, low levels of tolerance for deviant behavior, and high levels of monitoring behavior and deviance (Laub and Sampson 2003). Therefore, these measures also possess content validity, as they assess the level of romantic relationship control for former serious juvenile offenders whereby higher

levels of romantic relationship control denote stronger bonds and attachments to their significant other, leading to a decrease in the likelihood of reoffending (Laub and Sampson 2003).

I added the three attitudinal measures (i.e., quality of romantic relationship, tolerance of deviance, and monitoring of behavior and deviance) together into a romantic relationship control scale. As the scoring was not consistent across the three measures for my romantic relationship control scale (i.e., scoring ranged from 0 to 4 or from 0 to 3), I utilized z-scores to standardize my scale. To assess the construct validity of my measures regarding romantic relationship control, I performed the alpha reliability test. The alpha reliability test indicated that my scale had a reliability score of 0.95, which is greater than 0.75 thereby indicating that my scale has internal consistency (Tabachnick and Fidell 1996). I also performed principal components analysis to assess the construct validity of my scale. After performing principal components analysis, I confirmed that my measures loaded onto one factor as only one factor had an eigenvalue over 1. In addition, I also confirmed that my scale possesses discriminant validity as each of the measures had factor loading scores that ranged from 0.94 to 0.96; thus, each factor loading score was greater than 0.45 (Tabachnick and Fidell 1996).

Commitment to Employment

Respondents' commitment to employment is measured using four different measures. Three of these measures are attitudinal assessments of how important and attainable employment is for each respondent. The first measure determines a

respondents' employment status by combining the responses of two measures that asked respondents to indicate how many weeks they worked in community jobs (i.e., presumably formal employment) or under-the-table jobs (i.e., presumably informal employment) during the recall period (Mulvey 2013). I recoded responses for this measure according to the following code: 0 = not employed; and 1 = employed. The second measure is an attitudinal assessment that asked respondents to indicate how important it is to them to have a good job or career (Mulvey 2013). Responses for this measure ranged from 1 (not at all important) to 5 (very important) with a lower number indicating that having a good job or career is not important and a higher number indicating that having a good job or career is important (Mulvey 2013). I recoded responses for this measure from 0 (not at all important) to 4 (very important). The third measure is an attitudinal assessment that asked respondents to indicate how likely it is for them to have a good job or career and the fourth measure is an attitudinal assessment that asked respondents to indicate how likely it is for them to earn a good living (Mulvey 2013). Responses for these measures ranged from 1 (poor) to 5 (excellent) with a lower number indicating that having a good job or career/earning a good living is not likely and a higher number indicating that having a good job or career/earning a good living is likely (Mulvey 2013). I recoded responses for these measures from 0 (poor) to 4 (excellent).

Each of the prior measures regarding respondents' employment status, the importance of a having a good job or career, the likelihood of having a good job or career, and the likelihood of earning a good living, appear to measure the concept of commitment to employment. Thus, these measures have face validity. These measures

also possess content validity as the age-graded theory of informal social control maintains that strong bonds to employment, including stable employment and commitment to employment, may act as a turning point in adults' lives thereby leading to strengthening in informal social control (Laub and Sampson 2003). Moreover, former offenders may be less likely to reoffend if they are employed, believe that having a good job or career is important as well as likely, and believe that earning a good living is likely (Laub and Sampson 2003). Therefore, the aforementioned measures possess content validity, as they assess the commitment to employment for former serious juvenile offenders whereby a higher commitment to employment denotes stronger bonds and attachments to society, leading to a decrease in the likelihood of reoffending (Laub and Sampson 2003).

I added the three attitudinal measures (i.e., how important to have a good job or career, how likely to have a good job or career, and how likely to earn a good living) together into a commitment to employment scale. To assess the construct validity of my measures regarding commitment to employment, I performed the alpha reliability test. The alpha reliability test indicated that my scale had a reliability score of 0.76, which is greater than 0.75 thereby indicating that my scale has internal consistency (Tabachnick and Fidell 1996). I also performed principal components analysis to assess the construct validity of my scale whereby I confirmed that my measures loaded onto one factor as only one factor had an eigenvalue over 1. In addition, I also confirmed that my scale possesses discriminant validity as each of the measures had factor loading scores that ranged from 0.63 to 0.92; thus, each factor loading score was greater than 0.45 (Tabachnick and Fidell 1996).

Commitment to Education

Respondents' commitment to education is measured using five different measures. Four of these measures are attitudinal assessments of how important and attainable education is for each respondent. The first measure determines whether a respondent has earned a high school degree or received a GED by utilizing a measure that asked respondents who had graduated from high school or received their GED to indicate whether or not they had applied to college (Mulvey 2013). I recoded responses for this measure according to the following code: 0 = no high school degree/GED; and 1 = high school degree/GED. The second measure is an attitudinal assessment that asked respondents to indicate how far they would like to go in their schooling and the third measure is an attitudinal assessment that asked respondents to indicate how far they think they will go in their schooling (Mulvey 2013). Response categories for these measures were scored according to the following code: 1 = drop out before graduation; 2 = graduate from high school; 3 = go to a business, technical school or junior college; 4 = graduate from college; and 5 = go to graduate or professional school (Mulvey 2013). Lower numbers for these measures indicate that a respondent would like to achieve/thinks that he/she will achieve less education whereas higher numbers indicate that a respondent would like to achieve/thinks that he/she will achieve more education (Mulvey 2013). I recoded responses for these measures from 0 (drop out before graduation) to 4 (go to graduate or professional school). The fourth measure is an attitudinal assessment that asked respondents to indicate how important it is to them to graduate from college (Mulvey 2013). Responses for this measure ranged from 1 (not at all important) to 5 (very important) with a lower number indicating that graduating from

college is not important and a higher number indicating that graduating from college is important (Mulvey 2013). I recoded responses for this measure from 0 (not at all important) to 4 (very important). The fifth measure is an attitudinal assessment that asked respondents to indicate how likely it is for them to graduate from college (Mulvey 2013). Responses for this measure ranged from 1 (poor) to 5 (excellent) with a lower number indicating that graduating from college is not likely and a higher number indicating that graduating from college is likely (Mulvey 2013). I recoded responses for this measure from 0 (poor) to 4 (excellent).

Each of the previous measures regarding whether a respondent has earned a high school degree or received a GED, beliefs about how far one will go in his/her education, and beliefs about graduating from college, appear to measure the concept of commitment to education. Thus, these measures possess face validity. Even though the aforementioned measures pertain to education and not employment, the effect of having a strong commitment to education may be similar to the effect of having a strong commitment to employment on desistance from crime for adult offenders (Laub and Sampson 2003; Mulvey 2013). Hence, these measures also have content validity as the age-graded theory of informal social control holds that strong bonds to employment, including stable employment and commitment to employment, may act as a turning point in adults' lives thereby leading to strengthening in informal social control (Laub and Sampson 2003). Moreover, employment may provide former offenders with a stake in conformity that increases their bonds and attachments to that job, their employer, and society overall (Laub and Sampson 2003). These measures appear to assess whether individuals have a stake in conformity whereby former offenders may be less likely to

reoffend if they have a high school degree or a GED, believe that they would like to further their education and think that they are able to do so, and believe that graduating from college is important and likely (Laub and Sampson 2003). As a result, these measures possess content validity, as they measure the commitment to education for former serious juvenile offenders whereby a higher commitment to education denotes stronger bonds and attachments to society, leading to a decrease in the likelihood of reoffending (Laub and Sampson 2003).

I added the four attitudinal measures (i.e., how far would like to go in schooling, how far think will go in schooling, how important to graduate from college, and how likely to graduate from college) together into a commitment to education scale. To assess the construct validity of my measures regarding commitment to education, I performed the alpha reliability test. The alpha reliability test indicated that my scale had a reliability score of 0.86, which is greater than 0.75 thereby indicating that my scale has internal consistency (Tabachnick and Fidell 1996). I also performed principal components analysis to assess the construct validity of my scale whereby I confirmed that my measures loaded onto one factor as only one factor had an eigenvalue over 1. In addition, I also confirmed that my scale possesses discriminant validity as each of the measures had factor loading scores that ranged from 0.81 to 0.90; thus, each factor loading score was greater than 0.45 (Tabachnick and Fidell 1996).

Frequency of Offending

To determine a respondent's frequency of offending, the number of offenses he/she committed within the twelve months prior to the eighty-four month follow-up

interviews was assessed. To do so, fifteen measures were utilized that asked respondents to indicate the number of times they committed a particular offense during the recall period (Mulvey 2013). The fifteen measures include the following offenses: destroying or damaging property; entering a building to steal; shoplifting; buying, receiving, or selling stolen property; selling marijuana; selling other illegal drugs; driving drunk or high; shooting someone by pulling a trigger; committing a robbery with a weapon; committing a robbery without a weapon; beating up someone badly so that they needed a doctor; being in a fight; fighting as part of a gang; carrying a gun; and breaking into a car to steal something (Mulvey 2013). To minimize outliers, values were truncated at the upper limit of 20 for the following eleven measures: destroying or damaging property; shoplifting; buying, receiving, or selling stolen property; selling marijuana; selling other illegal drugs; driving drunk or high; beating up someone so badly that they needed a doctor; being in a fight; fighting as part of a gang; carrying a gun; and breaking into a car to steal something (Mulvey 2013). Each of these measures regarding the number of times an offense was committed appear to measure the concept of frequency of offending. Thus, these measures possess face validity. These measures also have content validity as they encompass a variety of offenses (i.e., property, theft, drug, and violent).

I added the fifteen offense measures together into a frequency of offending scale. To assess the construct validity of my measures regarding frequency of offending, I performed the alpha reliability test. The alpha reliability test indicated that my scale had a reliability score of 0.68, which is slightly lower than 0.75 thereby indicating that my scale has good internal consistency (Tabachnick and Fidell 1996). I also performed

principal components analysis to assess the construct validity of my scale whereby I confirmed that my measures loaded onto one factor that is greater than the eigenvalue of 1. In addition, I also confirmed that my scale generally possesses discriminant validity as each of the measures had factor loading scores that ranged from 0.31 to 0.72 with seven measures having factor loading scores below 0.45 and eight measures having factor loading scores greater than 0.45 (Tabachnick and Fidell 1996). As the distribution for my frequency of offending scale is highly positively skewed, I logged the variable for analysis purposes.

Control Variables

Respondents' gender was scored according to the following code: 1 = male; and 2 = female (Mulvey 2013). I recoded gender according to the following code: 0 = female; and 1 = male. Respondents' age was a continuous variable and was scored accordingly (Mulvey 2013). Respondents' race/ethnicity was scored according to the following code: 1 = white; 2 = black; 3 = Hispanic; and 4 = other (Mulvey 2013). I recoded race according to the following code: 0 = white; and 1 = non-white. Respondents' household family structure was scored according to the following code: 1 = two biological parents; 2 = single biological mom, never married; 3 = single biological mom, divorced, or separated; 4 = single biological mom, widowed; 5 = biological mom and stepdad; 6 = single biological dad; 7 = other adult relative; 8 = biological dad and stepmom; 9 = two adoptive parents; 10 = no adult in the home; 11 = other; 12 = single biological mom, married, biological dad not present; and 13 = single biological mom, marital status unknown (Mulvey 2013). I recoded respondents'

household family structure according to the following code: 0 = not two biological parents; and 1 = two biological parents. Parents' education level was scored according to the following code: 1 = some graduate or professional school/professional or graduate school; 1.5 = college graduate or some graduate or professional school/professional or graduate school; 2 = college graduate; 2.5 = business or trade school/some college/graduate of 2-year college or college graduate; 3 = business or trade school/some college/graduate of 2-year college; 3.5 = high school diploma or business or trade school/some college/graduate of 2-year college; 4 = high school diploma; 4.5 = some high school or high school diploma; 5 = some high school; 5.5 = grade school or less or some high school; and 6 = grade school or less (Mulvey 2013). I combined the following categories for parents' education level: 1 through 4; and 4.5 through 6. I recoded parents' education level according to the following code: 0 = less than high school degree/GED; and 1 = at least high school degree/GED.

Mother's warmth is a mean of nine items that assesses the level of nurturing and support provided by a respondents' mother with higher scores indicating greater maternal nurturing and support (Mulvey 2013). This measure is a pre-made scale created by Mulvey (2013); however, the individual items utilized to comprise this scale are not provided. Mulvey (2013) performed confirmatory factor analysis on this scale at baseline (Center for Research on Healthcare Data Center 2016e). Results at baseline suggest that the scale has internal consistency, as the scale had an alpha reliability score of 0.92 (Tabachnick and Fidell 1996; Center for Research on Healthcare Data Center 2016e). Responses for mother's warmth ranged from 1 (never) to 4 (always) (Mulvey 2013). I recoded responses for mother's warmth from 0 (never) to 3 (always). Mother's

hostility is a mean of twelve items that assesses the level of hostility inflicted by a respondents' mother with higher scores indicating greater hostility (Mulvey 2013). This measure is a pre-made scale created by Mulvey (2013); however, the individual items utilized to comprise this scale are not provided. Mulvey (2013) performed confirmatory factor analysis on this scale at baseline (Center for Research on Healthcare Data Center 2016e). Results at baseline suggest that the scale has internal consistency, as the scale had an alpha reliability score of 0.85 (Tabachnick and Fidell 1996; Center for Research on Healthcare Data Center 2016e). Responses for mother's hostility ranged from 1 (never) to 4 (always) (Mulvey 2013). I recoded responses for mother's hostility from 0 (never) to 3 (always).

Respondents' number of early onset problems assesses whether the following events occurred before respondents reached the age of eleven: got in trouble for cheating, disturbing class, being drunk/stoned, stealing, or fighting (Mulvey 2013). Respondents' number of early onset problems was a continuous variable and was scored accordingly (Mulvey 2013). The future orientation inventory scale is a mean of eight items that assesses the level of future planning by respondents with higher scores denoting greater future planning (Mulvey 2013). This measure is a pre-made scale created by Mulvey (2013); however, the individual items utilized to comprise this scale are not provided. Mulvey (2013) performed confirmatory factor analysis on this scale at baseline (Center for Research on Healthcare Data Center 2016f). Results at baseline suggest that the scale has good internal consistency, as the scale had an alpha reliability score of 0.68 (Tabachnick and Fidell 1996; Center for Research on Healthcare Data Center 2016f). Responses for the future orientation inventory scale ranged from 1

(never true) to 4 (always true) (Mulvey 2013). I recoded responses for the future orientation inventory scale from 0 (never true) to 3 (always true).

Models

This study is a cross-sectional analysis of a longitudinal theory. Sampson and Laub (2003) suggest in their age-graded theory of informal social control that a state of good marriage and stable employment may hasten desistance from crime for former serious juvenile offenders. Thus, Sampson and Laub (2003) indicate that a cross-sectional analysis can assess desistance from crime. As the recall period is twelve months for the eighty-four month follow-up interviews, it was assumed that respondents might have experienced several changes during the recall period in regards to romantic relationships and employment. Moreover, due to these frequent changes, it was further assumed that utilizing multiple waves of data would have incorporated too many changes in respondents' lives that would not necessarily affect the likelihood of offending at the eighty-four month follow-up interviews. Accordingly, this study employs one wave of data at the eighty-four month follow-up interviews to determine whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders.

In addition, it is important to note that this study infers that romantic relationship control, commitment to employment, and commitment to education might be associated with the likelihood of offending. So, this study does not assume that romantic relationship control, commitment to employment, and commitment to education cause

offending. It is also important to note that respondents could have offended during the recall period prior to being in a romantic relationship, being employed, and/or obtaining their high school degree or GED.

My first model examines whether romantic relationship control decreases the likelihood of offending for young adults who are former serious juvenile offenders. The independent variables for my first model are romantic relationship status and the romantic relationship control scale. The dependent variable for my first model is frequency of offending. The control variables are gender, age, non-white, parents' education level, two biological parents in household, mother's warmth, mother's hostility, number of early onset problems, and the future orientation inventory scale.

My second model examines whether commitment to employment decreases the likelihood of offending for young adults who are former serious juvenile offenders. The independent variables for my second model are employment status and the commitment to employment scale. The dependent variable for my second model is frequency of offending. The control variables are gender, age, non-white, parents' education level, two biological parents in household, mother's warmth, mother's hostility, number of early onset problems, and the future orientation inventory scale.

My third model examines whether commitment to education decreases the likelihood of offending for young adults who are former serious juvenile offenders. The independent variables for my third model are high school degree/GED attainment and the commitment to education scale. The dependent variable for my third model is frequency of offending. The control variables are gender, age, non-white, parents' education level, two biological parents in household, mother's warmth, mother's

hostility, number of early onset problems, and the future orientation inventory scale.

My fourth model examines whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders. The independent variables for my fourth model are romantic relationship status, the romantic relationship control scale, employment status, the commitment to employment scale, high school degree/GED attainment, and the commitment to education scale. The dependent variable for my fourth model is frequency of offending. The control variables are gender, age, non-white, parents' education level, two biological parents in household, mother's warmth, mother's hostility, number of early onset problems, and the future orientation inventory scale.

Analytic Strategy

I utilized ordinary least squares (OLS) regression for each of my four models to determine whether romantic relationship control, commitment to employment, and/or commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders, as the dependent variable is measured at the interval level of measurement.

RESULTS

Table 1 provides descriptive statistics for the variables included in this study (refer to Table 1 in Appendix A for complete descriptive statistics). Table 1 shows that the majority of respondents in the sample are male (79.3%) and that respondents are

approximately 23 years old on average (the range is between 20 and 26). Table 1 also shows that the majority of respondents in the sample are non-white (75.9%) Additionally, Table 1 shows that a minority of respondents in the sample had two biological parents in their household at baseline (16.0%). Table 1 further shows that the majority of respondents have parents who have obtained at least a high school degree or a GED (51.8%).

In addition, Table 1 shows that the average score for mother's warmth is 2.2 whereas the average score for mother's hostility is 0.6 (the range is between 0 and 3 for these two measures). So, respondents have on average a relatively high level of maternal nurturing and support as well as a relatively low level of maternal hostility. Table 1 also shows that respondents have 1.4 early onset problems on average (the range is between 0 and 5), which indicates that respondents have a relatively low number of early onset problems. Table 1 further shows that respondents' average score for the future orientation inventory scale is 1.4 (the range is between 0 and 3), which suggests that respondents have a moderate level of future planning.

Regarding the romantic relationship control measures, Table 1 shows that the majority of respondents are in a romantic relationship (67.4%) and that the average score for the romantic relationship control scale is 5.3 (the range is between 0 and 10). Regarding the commitment to employment measures, Table 1 shows that the majority of respondents are employed (77.9%) and that the average score for the commitment to employment scale is 9.5 (the range is between 0 and 12). Regarding the commitment to education measures, Table 1 shows that a minority of respondents have a high school degree or a GED (27.7%) and that the average score for the commitment to education

scale is 8.9 (the range is between 0 and 16). Lastly, Table 1 shows that respondents committed 6.4 offenses on average (the range is between 0 and 166) during the recall period.

For Model 1, OLS regression was utilized to determine whether romantic relationship control decreases the likelihood of offending for young adults who are former serious juvenile offenders (refer to Table 2 in Appendix A for complete results). The results indicate that individuals in a romantic relationship commit an estimated 170%[1] more offenses than individuals not in a romantic relationship, which is statistically significant. The results also indicate that a unit increase in romantic relationship control corresponds to an estimated 26% decrease in the frequency of offending, which is statistically significant. These contrasting findings demonstrate that just being in a romantic relationship does not decrease the likelihood of offending; rather, it is being in a higher control romantic relationship that decreases the likelihood of offending. So, hypothesis one pertaining to higher levels of romantic relationship control decreasing the likelihood of offending for young adults who are former serious juvenile offenders is partially supported. In addition to these findings, statistically significant results were found between some of the control variables and frequency of offending. For instance, all else being equal, males commit an estimated 48% more

[1] A dichotomous variable was created indicating whether respondents' romantic relationship consisted of high control (0 = not in romantic relationship/all other control; and 1 = high control). OLS regression was performed with this high control variable for Model 1. Results suggest that high control romantic relationships are not statistically significant. Approximately 99% of respondents' romantic relationships can be characterized as having weak (80%) or moderate (19%) control. Accordingly, this positive, significant finding of individuals in a romantic relationship committing an estimated 170% more offenses than individuals not in a romantic relationship may be attributed to the overwhelming majority of romantic relationships being low control.

offenses than females. All else being equal, non-whites commit an estimated 27% fewer offenses than whites. In addition, a unit increase in mother's hostility corresponds to an estimated 27% increase in the frequency of offending. Lastly, a unit increase in the number of early onset problems corresponds to an estimated 14% increase in the frequency of offending.

For Model 2, OLS regression was utilized to determine whether commitment to employment decreases the likelihood of offending for young adults who are former serious juvenile offenders (refer to Table 2 in Appendix A for complete results). The results indicate that being employed is not statistically significant.[2] This nonsignificant finding may be attributed to respondents being employed in low paying, manual jobs and/or being employed in precarious, informal jobs. The results also indicate that a unit increase in commitment to employment corresponds to an estimated 6% decrease in the frequency of offending, which is statistically significant. So, hypothesis two pertaining to greater commitment to employment decreasing the likelihood of offending for young adults who are former serious juvenile offenders is partially supported. In addition to these findings, statistically significant results were found between some of the control variables and frequency of offending. For instance, all else being equal, males commit an estimated 49% more offenses than females. All else being equal, non-whites commit

[2] Two dichotomous variables were created indicating whether respondents were employed in a community job during the recall period (0 = not employed in community job; and 1 = employed in community job) and whether respondents were employed in a stable community job (i.e., at least 6 months) during the recall period (0 = not employed in stable community job; and 1 = employed in stable community job). OLS regression was performed with these variables for Model 2. Results suggest that being employed in a community job is not statistically significant. Results also suggest that being employed in a stable community job is not statistically significant. Accordingly, employment in a community job or a stable community job does not affect the likelihood of offending.

an estimated 28% fewer offenses than whites. In addition, a unit increase in mother's hostility corresponds to an estimated 32% increase in the frequency of offending. Lastly, a unit increase in the number of early onset problems corresponds to an estimated 13% increase in the frequency of offending.

For Model 3, OLS regression was utilized to determine whether commitment to education decreases the likelihood of offending for young adults who are former serious juvenile offenders (refer to Table 2 in Appendix A for complete results). The results indicate that having a high school degree or a GED is not statistically significant.[3] The results also indicate that a unit increase in commitment to education is not statistically significant. These nonsignificant findings regarding having a high school degree or a GED and commitment to education may be attributed to respondents not being committed to education in general, as only a minority of respondents (27.7%) had obtained a high school degree or a GED by the time they were between the ages of twenty and twenty-six. So, hypothesis three pertaining to greater commitment to education decreasing the likelihood of offending for young adults who are former serious juvenile offenders is not supported. Irrespective of these findings, statistically significant results were found in this model between some of the control variables and frequency of offending. For instance, all else being equal, males commit an estimated 49% more offenses than females. All else being equal, non-whites commit an estimated 24% fewer offenses than whites. Furthermore, a unit increase in mother's hostility corresponds to an estimated 29% increase in the frequency of offending. Lastly, a unit increase in the number of early onset problems corresponds to an estimated 14%

[3] As few respondents (27.7%) have obtained a high school degree or a GED, it is more difficult for this finding to be statistically significant.

increase in the frequency of offending.

For Model 4, OLS regression was utilized to determine whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders (refer to Table 2 in Appendix A for complete results). Although this model includes each of the independent variables for the three primary relationships being examined (i.e., romantic relationship control, commitment to employment, and commitment to education), all of the relationships that were statistically significant in Models 1, 2, and 3 continue to be statistically significant in the same direction in Model 4. Moreover, Model 4 does not contain any additional statistically significant findings that were not found in Models 1, 2, and 3.

CONCLUSION

This study sought to examine whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders. By analyzing the Pathways to Desistance data from the eighty-four month follow-up interviews, this study furthered previous research by examining the influence of the aforementioned factors on desistance from crime for former serious juvenile offenders (Mulvey 2013). Due to the significant relationships that were found, the results of this study demonstrate that higher levels of romantic relationship control decrease the likelihood of offending for young adults who are former serious juvenile offenders. Moreover, the findings of this study demonstrate that just being in a romantic relationship does not

decrease the likelihood of offending, especially if the romantic relationship has low levels of control. On the contrary, it is being in a romantic relationship that has higher levels of control that decreases the likelihood of offending.

Due to the significant relationships that were found, the results of this study also demonstrate that greater commitment to employment decreases the likelihood of offending for young adults who are former serious juvenile offenders. The nonsignificant finding regarding employment status may be attributed to respondents being employed in low paying, manual jobs and/or being employed in precarious, informal jobs. In addition, the results of this study demonstrate that greater levels of commitment to education do not decrease the likelihood of offending for young adults who are former serious juvenile offenders. The nonsignificant findings regarding having a high school degree or a GED and commitment to education may be attributed to respondents not being committed to education in general, as the majority of respondents had not obtained a high school degree or a GED by the time they were between the ages of twenty and twenty-six. The results of this study further suggest that, all else being equal, males are more likely to commit a greater number of offenses than females and non-whites are more likely to commit fewer offenses than whites. Lastly, the results suggest that higher levels of mother's hostility and greater numbers of early onset problems increase the likelihood of offending.

Although this study possesses many strengths, it does possess some weaknesses. For instance, each of the scales regarding romantic relationship control, commitment to employment, commitment to education, and frequency of offending could be improved by incorporating measures that increase their content and construct validity. As this

study is a cross-sectional analysis of a longitudinal theory, future research should employ multiple waves of data to assess the effect of romantic relationship control, commitment to employment, and commitment to education on the likelihood of offending. Another weakness of this study is that the behavioral controls of being in a romantic relationship and being employed were not found to decrease the likelihood of offending. Rather, the attitudinal assessments regarding romantic relationships and employment were found to decrease the likelihood of offending. As these results differ from the findings of Sampson and Laub (2003), future research should further consider how the behavioral controls of being in a romantic relationship and being employed affect the likelihood of offending.

The non-significant results that were found regarding the influence of commitment to education on frequency of offending for young adults who are former serious juvenile offenders is an additional weakness of this study. Accordingly, future research should consider how commitment to education influences desistance from crime for young adults who are former serious juvenile offenders. Furthermore, this study focused on how romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders. Thus, this study did not assess how the aforementioned factors influence desistance from crime for less serious juvenile offenders. Hence, future research should consider how romantic relationship control, commitment to employment, and commitment to education influence the likelihood of desistance from crime for less serious juvenile offenders. Lastly, the sample utilized by this study is comprised of serious juvenile offenders from Maricopa County, Arizona

and Philadelphia County, Pennsylvania. As a result, the findings of this study are limited to the scope of this sample, as it is not nationally representative of young adults.

Even though this study has some weaknesses, the strengths of the study far outweigh its weaknesses. By utilizing the age-graded theory of informal social control and the Pathways to Desistance data from the eighty-four month follow-up interviews, this study furthered previous research by ascertaining whether romantic relationship control, commitment to employment, and commitment to education decrease the likelihood of offending for young adults who are former serious juvenile offenders. Additionally, the measures used by this study allowed for the examination of whether stakes in conformity and beliefs influenced desistance from crime for young adults who are former serious juvenile offenders. Due to the negative effects that criminal offending may have on the life trajectories of offenders as well as the harm that criminal offending causes on victims and society, it is important to further research the mechanisms that increase the likelihood of desistance from crime for young adults who are former serious juvenile offenders.

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APPENDIX A: TABLES

Tables

Table 1. Descriptive Statistics for Measures

	(% or M)	(N or SD)	Range
Social Background			
Male	79.3%	(624)	0 – 1
Age	23.0	(1.2)	20 – 26
Non-White	75.9%	(598)	0 – 1
Two Biological Parents in Household	16.0%	(126)	0 – 1
Parents have at least High School Degree/GED	51.8%	(400)	0 – 1
Maternal Relationship Quality			
Mother's Warmth	2.2	(0.7)	0 – 3
Mother's Hostility	0.6	(0.4)	0 – 3
Self-Control			
Number of Early Onset Problems	1.4	(1.1)	0 – 5
Future Orientation Inventory Scale	1.4	(0.5)	0 – 3
Romantic Relationship Control			
In Romantic Relationship	67.4%	(531)	0 – 1
Romantic Relationship Control Scale	5.3	(3.9)	0 – 10
Commitment to Employment			
Employed	77.9%	(614)	0 – 1
Commitment to Employment Scale	9.5	(2.3)	0 – 12
Commitment to Education			
High School Degree/GED	27.7%	(218)	0 – 1
Commitment to Education Scale	8.9	(4.1)	0 – 16
Frequency of Offending	6.4	(16.3)	0 – 166

Source: Pathways to Desistance 2010, N=788

Table 2. Unstandardized Estimates for Regression Models

	Model 1 - Romantic Relationships	Model 2 - Employment	Model 3 - Education	Model 4 - All Variables
Social Background				
Male[1]	0.48***	0.49***	0.49***	0.50***
Age	-0.00	-0.00	-0.00	0.00
Non-White[2]	-0.27*	-0.28*	-0.24*	-0.30**
Two Biological Parents in Household[3]	-0.20	-0.23	-0.24	-0.19
Parents have at least High School Degree/GED[4]	-0.05	-0.00	-0.02	-0.05
Maternal Relationship Quality				
Mother's Warmth	-0.07	-0.11	-0.13	-0.05
Mother's Hostility	0.27*	0.32**	0.29*	0.30**
Self-Control				
Number of Early Onset Problems	0.14**	0.13**	0.14**	0.13**
Future Orientation Inventory Scale	-0.11	-0.10	-0.12	-0.12
Romantic Relationship Control				
In Romantic Relationship[5]	1.70***			1.64***
Romantic Relationship Control Scale	-0.26***			-0.25***
Commitment to Employment				
Employed[6]		-0.07		-0.07
Commitment to Employment Scale		-0.06**		-0.07**
Commitment to Education				
High School Degree/GED[7]			0.03	-0.01
Commitment to Education Scale			0.00	0.02
Intercept	-0.39	1.32	0.73	0.37
R^2	0.12	0.09	0.08	0.13

Legend: * p<0.05; ** p<0.01; *** p<0.001;
Source: Pathways to Desistance 2010, N=788

[1] Reference category is females.
[2] Reference category is whites.
[3] Reference category is respondents who do not have two biological parents in the household.
[4] Reference category is respondents whose parents have obtained less than a high school degree/GED.
[5] Reference category is respondents who are not in a romantic relationship.
[6] Reference category is respondents who are not employed.
[7] Reference category is respondents who have not obtained a high school degree/GED.

APPENDIX B: SURVEY QUESTIONS

Survey Questions

Selected Questions from Baseline Survey Instrument for Pathways to Desistance Study (Mulvey 2013)

a. Subject's gender:

[ ] Male
[ ] Female

b. Recoded ethnicity; self-reported ethnicity collapsed into 4 groups:

[ ] White
[ ] Black
[ ] Hispanic
[ ] Other

c. Education level of biological mother:

[ ] Some grad or prof school/prof or grad school
[ ] College graduate
[ ] Business or trade school/some college/grad of 2-yr college
[ ] High school diploma
[ ] Some high school
[ ] Grade school or less

d. Education level of biological father:

[ ] Some grad or prof school/prof or grad school
[ ] College graduate
[ ] Business or trade school/some college/grad of 2-yr college
[ ] High school diploma
[ ] Some high school
[ ] Grade school or less

e. Parents education level:

The SES score is the mean of the biological mother and father's education level. Higher SES values reflect lower levels of education.

f. Parent Warmth – Mother; Mean of nine items, seven must contain valid data:

Items from the measure tap parental warmth – mother (e.g., "How often does your mother let you know she really cares about you?"). Higher scores indicate a more supportive and nurturing relationship.

[ ] Never
[ ] Sometimes
[ ] Often
[ ] Always

g. Parent Hostility – Mother; Mean of twelve items, nine must contain valid data:

Items from the measure tap parental hostility – mother (e.g., "How often does your mother get angry at you?"). Higher scores indicate a more hostile relationship.

[ ] Never
[ ] Sometimes
[ ] Often
[ ] Always

h. A count of the number of early onset problems that were endorsed:

This item is a summary variable of five questions that were asked regarding the number of early onset problems that occurred before the age of eleven (i.e., get in trouble for cheating, disturbing class, being drunk/stoned, stealing, or fighting).

i. Future Outlook Inventory – Mean of eight items included in the computation; seven items in the scale are not considered in the total score:

This item determines the degree to which each statement reflects how respondents' usually are (e.g., I will keep working at difficult, boring tasks if I know they will help me get ahead later). Higher scores indicate a greater degree of future consideration and planning.

[ ] Never true
[ ] Rarely true
[ ] Often true
[ ] Always true

Selected Questions from Eighty-Four Month Follow-up Survey Instrument for Pathways to Desistance Study (Mulvey 2013)

a. Subject's age at the time of the interview (Truncated); interview date minus the subject's date-of-birth truncated to a whole number.

b. Where did this interview take place?

[ ] Subject's home
[ ] At the placement
[ ] Somewhere else

c. What type of facility did the interview take place in?

[ ] Residential treatment center (centralized staff, institutional setting)
[ ] Secure
[ ] Jail/Prison
[ ] Detention

d. Romantic Relationship – Quality of Relationship; Mean of seven items:

This item determines the quality of respondents' romantic relationship (e.g., "In general, how happy are you with your relationship?"). Higher scores indicate a more symbiotic relationship.

e. Romantic Relationship – Tolerance of Deviance; Mean of two items:

This item determines how tolerant a respondents' significant other is with deviance (e.g., "Would {Name} know if you have been using drugs?"). Higher scores indicate a more symbiotic relationship.

[ ] Would not care at all
[ ] Would be bothered, but would not say anything to me about it
[ ] Would be bothered and would talk to me about it
[ ] Would get very upset with me

f. Romantic Relationship – Monitoring; Mean of five items:

> This item determines how knowledgeable a respondents' significant other is of his/her behavior and deviance (e.g., "How much does {Name} know who you spend time with?"). Higher scores indicate a more symbiotic relationship.
>
> [ ] Doesn't know at all
> [ ] Knows a little bit
> [ ] Knows a lot
> [ ] Knows everything

g. Community – Total weeks worked in recall period across all community jobs.

h. Under-the-Table – Total weeks worked in recall period across all under-the-table only jobs.

i. How important is it to you…to have a good job or career?

> [ ] Not at all important
> [ ] Not too important
> [ ] Somewhat important
> [ ] Pretty important
> [ ] Very important

j. What do you think your chances are…to have a good job or career?

> [ ] Poor
> [ ] Fair
> [ ] Good
> [ ] Very good
> [ ] Excellent

k. What do you think your chances are…to earn a good living?

> [ ] Poor
> [ ] Fair
> [ ] Good
> [ ] Very good
> [ ] Excellent

l. Since you graduated from high school or obtained your GED, have you applied to a college or university?

[ ] No
[ ] Yes

m. How far would you like to go in school?

[ ] Drop out before graduation
[ ] Graduate from high school
[ ] Go to a business, technical school or junior college
[ ] Graduate from college
[ ] Go to graduate or professional school

n. How far do you think you will go in school?

[ ] Drop out before graduation
[ ] Graduate from high school
[ ] Go to a business, technical school or junior college
[ ] Graduate from college
[ ] Go to graduate or professional school

o. How important is it to you…to graduate from college?

[ ] Not at all important
[ ] Not too important
[ ] Somewhat important
[ ] Pretty important
[ ] Very important

p. What do you think your chances are… to graduate from college?

[ ] Poor
[ ] Fair
[ ] Good
[ ] Very good
[ ] Excellent

q. Frequency of [purposely destroyed or damaged property that did not belong to you] in the recall period.

r. Frequency of [entered or broke into a building (home or business) to steal something] in the recall period.

s. Frequency of [stole something from a store (shoplifted)] in the recall period.

t. Frequency of [bought, received, or sold something that you knew was stolen] in the recall period.

u. Frequency of [sold marijuana] in the recall period.

v. Frequency of [sold other illegal drugs (cocaine, crack, heroin)] in the recall period.

w. Frequency of [driven while you were drunk or high] in the recall period.

x. Frequency of [shot AT someone (where you pulled the trigger)] in the recall period.

y. Frequency of [took something from another person by force, using a weapon] in the recall period.

z. Frequency of [took something from another person by force, without a weapon] in the recall period.

aa. Frequency of [beat up or physically attacked somebody so badly that they probably needed a doctor] in the recall period.

bb. Frequency of [been in a fight] in the recall period.

cc. Frequency of [beat up, threatened, or physically attacked someone as part of a gang] in the recall period.

dd. Frequency of [carried a gun] in the recall period.

ee. Frequency of [entered or broke into a car to steal something from it] in the recall period.